NESTING OF UGANDA BIRDS

By C. F. Belcher

The following is a tabular list of nests, containing eggs, noted in Uganda, during the period from October 1914 to June 1918 inclusive: excepting from the middle of March to the middle of July 1917, when the hunter was away on leave. Few observations were made in October–December 1914. Were the figures for January and February (four of each of which months are included) slightly reduced, and those for March and July slightly increased, a better idea would perhaps be given of the 'curve' of the nesting-seasons. But the totals, as they stand, form a fair guide for average years, and show plainly the connection between the breeding of birds and the occurrence of the seasonal rains: the maxima being reached in April and November (big and short rains respectively), and minima in January and August, which are usually the driest months.

	Jan.	Feb.	Mar.	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
PHALACROCORACIDÆ												
Phalacrocorax carbo lugubris	—	—	—	7	—	—	—	—	—	—	—	—
P. africanus	—	—	4	2	4	—	—	—	—	—	—	—
Anhinga rufa	—	—	4	6	2	—	—	—	—	—	—	—
CHARADRIIDÆ												
Glareola nuchalis	—	—	—	2	—	—	—	3	1	—	—	—
Charadrius varius varius	—	—	—	—	—	—	—	2	—	—	—	—
Stephanibyx lugubris	4	—	—	—	—	—	—	—	1	—	—	—
Œdicnemus vermiculatus	—	—	1	—	—	—	—	1	2	1	—	—
JACANIDÆ												
Actophilus africanus	—	—	—	1	—	—	—	1	—	—	—	—
RALLIDÆ												
Limnicorax niger	—	—	—	—	3	—	—	—	—	—	1	—
Porphyrio madagascarensis	—	—	1	—	—	—	—	—	—	—	—	—
ARDEIDÆ												
Ardetta payesi	—	—	—	—	—	—	—	—	—	—	1	1
Ardea purpurea	—	—	9	—	—	—	—	—	—	—	—	—
A. melanocephala	—	—	—	—	4	—	—	—	—	—	—	—
Bubulcus ibis	—	—	5	11	1	—	—	—	—	1	—	—

	Jan.	Feb.	Mar.	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
COLUMBIDÆ												
Vinago calva salvadorii	2	—	1	—	—	—	—	—	2	—	—	—
Turtur semitorquatus	1	—	1	—	2	—	—	3	—	—	1	2
T. capicola tropica	—	—	—	—	—	—	—	—	—	—	—	1
Tympanistria tympanistria	—	—	—	—	—	—	—	—	—	—	1	—
Chalcopelia afra sclateri	—	1	—	—	—	—	—	1	1	2	—	1
PHASIANIDÆ												
Nununda ptilorhyncha major	—	—	—	—	—	—	—	—	—	1	—	—
Francolinus schuetti	—	—	—	—	1	1	—	—	—	—	—	—
F. mulemœ	—	1	—	—	—	—	—	—	1	—	—	—
Excalfactoria adansoni	—	—	—	—	—	1	—	—	—	—	—	—
FALCONIDÆ												
Astur sp.	—	—	—	—	1	—	—	—	—	—	—	—
Haliaetus vocifer	—	—	1	—	—	—	1	—	—	—	—	—
Elanus cœruleus	—	—	—	—	—	1	—	—	—	—	—	—
STRIGIDÆ												
Bubo maculosus cinerascens	—	—	—	—	—	—	—	—	—	—	—	1
CUCULIDÆ												
Centropus superciliosus	—	—	—	—	2	1	—	—	—	—	—	—
Cuculus solitarius	—	—	—	1	—	—	—	—	—	—	—	—
CAPITONIDÆ												
Lybius bidentatus æquatorialis	—	—	—	1	—	1	—	—	—	—	—	—
PICIDÆ												
Dendromus nubicus	—	—	—	—	—	1	—	—	—	—	—	—
Mesopicos gœrtœ centralis	—	—	—	—	—	—	—	—	1	—	—	—
COLIIDÆ												
Colius leucotis ugandæ.	3	—	—	4	—	—	—	4	2	2	5	1
CORACIIDÆ												
Eurystomus afer rufobuccalis	—	—	3	1	—	—	—	—	—	—	—	—
ALCEDINIDÆ												
Halcyon chelicuti	1	—	—	—	—	—	—	—	—	—	—	—
H. senegalensis	—	—	2	—	—	—	—	—	—	—	—	—
Ispidina picta	1	—	1	—	1	—	—	—	1	4	—	—
Corythornis cyanostigma	—	—	—	—	—	—	—	—	—	—	1	—
Alcedo güntheri	—	1	—	—	2	—	—	—	—	—	—	1
Ceryle rudis	—	—	—	3	—	1	—	—	—	—	—	—
C. maxima	—	—	—	—	—	—	—	—	—	1	—	—
MEROPIDÆ												
Melittophagus meridionalis	—	—	1	—	—	—	—	—	1	1	—	—

	Jan.	Feb.	Mar.	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
CAPRIMULGIDÆ												
Caprimulgus sp.	—	—	—	1	—	—	—	—	1	1	—	—
MACROPTERYGIDÆ												
Apus streubeli	—	—	—	—	—	3	1	—	—	—	—	—
HIRUNDINIDÆ												
Riparia cincta	—	—	1	1	1	—	—	—	—	—	—	—
Hirundo angolensis	—	2	2	6	1	—	—	—	—	—	—	—
H. puella	—	—	3	—	1	—	—	—	—	—	—	—
H. senegalensis	—	—	—	1	—	—	—	—	—	—	—	—
MUSCICAPIDÆ												
Melœornis pammelaina ugandæ	1	—	—	2	1	—	—	—	—	1	—	—
Alseonax infulatus	—	—	—	1	1	—	—	—	—	—	—	—
Elminia longicauda	—	—	1	—	3	1	—	—	—	—	—	—
Tchitrea emini	—	—	—	—	—	2	—	—	—	—	—	—
LANIIDÆ												
Laniarius major	—	—	—	—	1	1	—	—	—	—	—	—
L. erythrogaster	—	—	—	—	2	2	—	—	2	—	—	—
Lanius collaris uropygialis	—	—	—	2	—	—	—	—	—	—	—	—
L. excubitorius böhmi	—	—	—	1	2	1	1	—	—	—	1	—
L. mackinnoni	—	—	—	1	1	—	—	—	—	—	—	—
CORVIDÆ												
Corvus scapulatus	—	—	—	—	—	1	—	—	—	—	—	—
ORIOLIDÆ												
Oriolus larvatus rolleti	—	—	—	1	—	—	—	—	—	—	—	—
STURNIDÆ												
Lamprocolius splendidus glaucovirens	—	6	—	—	—	—	—	—	—	—	—	—
PLOCEIDÆ												
Ploceus stuhlmanni	—	—	1	1	—	1	—	—	—	—	—	1
P. nigricollis	—	—	1	8	3	3	—	—	—	—	—	1
P. ocularius crocatus	—	—	3	6	4	3	1	—	—	—	—	—
P. aurantius rex	—	1	5	14	4	—	—	—	—	—	1	—
P. nigerrimus	—	7	2	—	1	—	—	—	2	3	—	—
P. abyssinicus feminina	—	1	1	1	—	8	—	—	—	1	—	—
P. jacksoni	—	4	—	2	—	—	—	—	—	—	5	—
P. dimidiatus	—	—	1	13	9	4	—	—	—	1	—	—
P. pelzelni	—	—	3	2	1	—	—	—	—	—	—	—
P. xanthops	—	—	—	2	1	1	—	—	—	1	—	1
P. castanops	—	4	4	11	1	—	—	1	—	—	1	2
P. superciliosus	—	—	—	5	3	—	—	—	—	—	—	—
Amblyospiza melanotus	—	—	2	—	—	2	—	—	—	—	—	—

	Jan.	Feb.	Mar.	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
SPERMESTINÆ												
Quelea sp.	—	—	—	—	1	—	—	—	—	—	—	—
Urobrachya phœnicea	—	—	1	9	1	—	—	—	—	1	1	1
Coliuspasser ardens	—	—	—	4	—	—	—	—	—	—	—	—
Spermestes cucullata	—	—	—	1	—	—	—	—	—	—	—	1
S. pœnsis stigmatophora	—	—	—	—	—	—	—	—	—	1	1	—
Estrilda astrild minor	—	—	1	1	1	—	—	—	—	—	—	—
E. paludicola	—	—	1	—	1	—	—	—	—	1	1	—
E. nonnula	1	—	—	—	1	—	—	—	—	2	—	—
Lagonosticta brunneiceps ruberrima	1	—	—	—	1	—	—	—	—	—	—	1
Ortygospiza polyzona	—	—	—	—	—	1	—	—	—	—	—	—
Urœginthus bengalus ugandæ	—	—	1	—	1	—	—	—	—	2	2	—
Vidua serena	—	—	—	1	—	—	—	—	—	—	1	—
FRINGILLIDÆ												
Passer griseus ugandæ	—	—	—	1	—	1	—	—	—	—	—	—
Poliospiza angolensis somereni	—	—	—	—	1	—	—	—	—	—	—	—
Serinus sharpei shelleyi	—	—	—	—	—	—	1	—	1	1	1	1
S. icterus barbatus	—	—	—	—	—	—	—	—	—	1	—	—
Spinus citrinelloides frontalis	—	—	—	—	1	—	1	—	—	—	—	—
MOTACILLIDÆ												
Motacilla vidua	—	—	—	—	1	—	—	—	—	—	—	—
Anthus rufulus cinnamomeus	—	—	—	—	2	4	—	—	—	—	—	—
A. leucophrys sordidus	—	—	—	—	—	1	—	—	—	—	—	—
Macronyx croceus	—	—	1	1	2	1	—	—	—	2	1	—
ALAUDIDÆ												
Mirafra africana tropicalis	—	—	—	—	—	—	—	—	—	—	1	2
PYCNONOTIDÆ												
Phyllastrephus albigularis	—	—	—	1	—	—	—	—	—	—	—	—
P. flavigula pallidigula	—	—	—	—	—	—	—	—	—	—	—	1
Pycnonotus tricolor minor	—	—	3	5	1	2	—	1	1	1	6	1
ZOSTEROPIDÆ												
Zosterops stuhlmanni	1	1	2	2	2	—	1	—	—	—	—	—
NECTARINIIDÆ												
Anthreptes collaris hypodillus	—	—	—	—	—	—	—	—	—	1	1	—
Chalcomitra verticulis viridi-splendens	—	—	—	—	—	—	2	—	—	—	—	—
C. cyanolœma	—	—	—	1	—	—	—	—	—	—	—	—
C. angolensis	—	—	—	—	—	—	—	—	—	—	1	—
C. œquatorialis	1	—	2	4	1	6	9	1	1	—	—	—
Cinnyris cupreus	—	—	1	7	5	6	4	—	1	—	—	—
C. superbus	—	—	—	1	—	—	—	—	—	—	—	—
C. chloropygius orphogaster	—	—	—	1	—	—	—	—	—	1	2	—
Helionympha erythrocerea	2	2	6	13	4	2	6	—	—	1	1	3

	Jan.	Feb.	Mar.	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
SYLVIIDÆ—(A) *SYLVIINÆ*												
Melocichla mentalis atricauda	1	—	—	—	1	1	—	—	—	—	—	1
Cisticola strangei	—	—	—	1	2	2	—	—	1	—	—	1
C. lugubris	—	—	1	—	2	7	1	—	—	—	2	—
C. terrestris ugandæ	—	—	—	1	—	—	—	—	—	—	—	—
C. lateralis	—	—	1	—	—	—	—	—	—	1	—	—
C. erythrops	—	—	—	1	1	—	1	—	—	—	—	—
Calamocichla leptorhyncha	—	—	2	2	2	—	—	—	—	—	1	—
Prinia mystacea	1	—	2	4	11	7	2	—	—	—	—	3
P. reichenowi	—	—	—	—	1	1	—	—	—	—	—	1
Eminia lepida	—	—	—	1	1	1	1	—	—	—	—	—
Camaroptera griseoviridis	—	—	—	1	—	—	—	—	—	—	—	—
Sylvietta virens	—	—	—	1	—	1	—	—	—	—	—	—
(B) *TURDINÆ*												
Crateropus melanops sharpei	—	—	—	1	—	—	1	—	—	—	—	—
Turdus pelios centralis	—	—	—	3	3	—	—	1	2	—	1	1
(C) *SAXICOLINÆ*												
Myrmecocichla nigra	—	—	—	—	—	2	—	1	1	—	—	—
(D) *ERITHACINÆ*												
Cossypha natalensis	—	—	—	—	1	—	—	—	—	—	—	—
C. heuglini	—	—	—	2	1	—	—	—	—	—	—	—
C. verticalis melanonota	—	—	—	—	1	1	—	—	—	—	—	—
Totals per month	21	25	95	192	118	77	34	20	26	37	42	31

Total = 716.

The figures for colony-nesting species—such as the cormorants, darters, herons, and certain weavers, and, again, for *Spermestes cucullata*—might be multiplied indefinitely, especially for the month of April. In these cases the figures in the table are of clutches of eggs actually taken only, and thus the totals are not unduly swollen.

The great majority of the nests included were noted on the Entebbe Peninsula and closely-adjacent mainland. A few were found at Mubendi, Singo, and Jinja; while two clutches (*Bubo maculosus* and *Turtur capicola*) came from near Kitgum.

None of the nightjars could be identified—the birds not being obtained at the time. Probably the nests found represent at least two species. The supposed goshawk's nest was found in a smallish tree by the lake. The boy who found it called the bird *dirawamu*; but that name is given by the Baganda to more than one hawk.

Eggs included in the above list, of whose taking I can find no previous printed record, are *Francolinus mulemæ, Lybius bidentatus æquatorialis, Lanius mackinnoni, Poliospiza angolensis somereni, Phyllastrephus albigularis, Chalcomitra angolensis, Cisticola lateralis.*

The 126 species here recorded constitute about one-fifth of the birds which in all probability breed within the limits of the Uganda Protectorate.

LUMBWA CAVES

An Investigation into Certain Mineral Deposits Obtained Therefrom

By C. W. Hobley, C.M.G.

Also Note by V. H. Kirkham and W. C. Birch

Early in 1918, in response to an inquiry, the District Commissioner at Kericho sent down some specimens of a soft rock, which the natives excavate from caves in that district and use as food for their live-stock.

The bulk of the specimens consisted of grey, powdery ash and a light volcanic tuff, and reminded one of certain rocks from other parts of the world. Chemical tests confirmed this, and one specimen yielded as much as 13 per cent. of tricalcic phosphate. This percentage compares badly with phosphate rocks in other parts of the world (but of quite different origin) which carry phosphate; but it was enough to warrant further investigation, and the region was accordingly visited by the Government Analyst and myself in March 1918, and specimens taken from each of the caves visited.

We left Lumbwa, and marched to Kericho Government Station. The following day, leaving our caravan there, we first explored the Bagau Cave, which is about seven and a half miles to the north of the station. This cave occurs behind a small waterfall in the steep valley of a small stream which runs towards the Nyando River. The cave is of artificial origin, and made for the purpose of extracting a layer of soft rock which lies between two beds of lava. We penetrated